REMARKS/ARGUMENTS

The rejections presented in the Office action dated August 24, 2005 have been considered. Claims 1, 6-13, 15, 17-19 and 23 are pending in the application. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

Claim 23 was rejected under 35 U.S.C. § 101 on the grounds that it is directed to non-statutory subject matter. Claim 23 has been amended to correct a typographical error. As the body of the claim includes various means for performing functions, the claim was clearly intended to be presented as an apparatus claim. The word "method" has been removed from Claim 23.

Claims 1-3, 5-15, 17-20 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,509,119 to La Fetra (hereinafter "*La Fetra*") in view of U.S. Patent No. 4,310,853 to *Madson*. Claims 2, 3, 5, 14 and 20 have been canceled. The Applicants respectfully traverse the rejection to the remaining pending claims in view of the amendments and remarks set forth herein.

Independent Claims 1, 11, 18 and 23, which are subject to the rejection based on the combination of *La Fetra* and *Madson*, have been amended. One aspect of the present invention involves processing only one ECC code. This embodiment is set forth throughout the application, including page 19, lines 6-7, and page 21, lines 10-21. This requires fewer ECC bits to be stored and reduces the required memory size. Independent Claims 1, 11, 18 and 23 have been amended to more clearly set forth this aspect of the invention. It is respectfully submitted that the combination of *La Fetra* and *Madson* do not teach or suggest at least this claimed feature. P*rima facie* obviousness is not established where the cited combination of references fails to teach or suggest all of the limitations of the claim (M.P.E.P. § 2143). It is respectfully submitted that the combination does not teach or suggest this aspect of the invention. The Examiner cites *La Fetra*, column 5, line 13 *et seq*. as teaching a second comparator 401 comparing the Cache-Tag to the CPU-Tag and comparing the derived CPU-Tag ECC to the Cache-ECC. It is respectfully submitted that this does not teach or suggest monitoring for errors in the stored tag address by identifying an error(s) using a single error correction code associated

with that stored tag address. *La Fetra* does not teach the use of a single ECC in such a system. FIG. 2 of *La Fetra* shows a single ECC used in a prior art system that does not involve the use a fast hit processing path. *La Fetra* teaches that to use such a fast hit processing path 407, the ECC must be split into two ECCs. Thus, there is no teaching **or suggestion** of using a single ECC in connection with a system that implements a fast and slow hit path. It is further noted that although *Madson* has not been relied upon by the Examiner as teaching or suggesting this aspect of the invention, either alone or in combination with *La Fetra*, a combination of *La Fetra* and *Madson* fails to teach or suggest at least this aspect of the invention.

Further, in independent Claims 1, 11, 18 and 23, the first and second comparisons perform the comparisons only on the corrected tag address and the memory address, and does not involve the error correction code. The Examiner cites *La Fetra* as describing these aspects. The Applicants respectfully disagree. As stated in Applicants' background of the invention:

> Prior art systems have also utilized multiple error correction codes, requiring additional memory capacity to house all of the ECC information. Further, these prior art systems perform a comparison of all bits, including ECC bits, which adversely affects performance. (p.3, lines 4-7)
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> ...
>
> It is important to note that in accordance with a preferred embodiment of the present invention, only the address bits are compared at the fast hit address compare 504. No ECC bits are compared. This allows fewer bits to be compared by the compare logic, thereby increasing the compare speed in the fast hit path. By using a smaller compare, a faster cycle time can be used, thus increasing performance. (p.20, lines 14-19).

One asserted advantage of the present invention is that ECC bits do not need to be compared in connection with the fast hit comparison. *La Fetra* clearly indicates that a Cache-Tag/Cache-ECC pair is compared to the CPU address Tag 403 and a derived CPU-Tag ECC generated by an ECC generator 405 and combining *Madson* does nothing to change this description of *La Fetra*. In other words, a combination of *La Fetra* and *Madson* does not teach or suggest that both the first, and second, comparisons are performed without regard to any stored ECC bits.

It is respectfully submitted that independent Claims 1, 11, 18 and 23 are not rendered obvious by the cited combination of *La Fetra* and *Madson*, which does not teach, or suggest, all the limitations of these independent claims. Reconsideration and allowance of the claims are respectfully solicited.

Claims 11-15 and 17-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *La Fetra* in view of U.S. Patent No. "Pipelined Datapath" from Logic and Computer Design Fundamentals by Mano et al. (hereinafter "*Mano*"). Claims 14 and 20 have been canceled. As indicated above, *La Fetra* does not teach or suggest (alone or in combination with *Madson*) all the limitations of independent Claims 1, 11, 18 and 23. *Mano* does not remedy the deficiencies of *La Fetra*. More particularly, the combination of *La Fetra* and *Mano* does not teach or suggest at least the aforementioned deficiencies of the combination of *La Fetra* and *Madson*.

Referring to Claim 11 for example, *La Fetra* is cited as teaching/suggesting all limitations of Claim 11 except for the latching mechanism. As indicated above, *La Fetra* does not teach or suggest (alone or in combination with *Mano*) all the limitations of amended Claim 11. The same holds true for independent Claim 18. It is respectfully submitted that amended Claims 11 and 18 are not rendered obvious by the combination of *La Fetra* and *Mano*. Claims 12-13, 15 and 17 are dependent from Claim 11, and Claim 19 is dependent from independent Claim 18. While Applicants do not acquiesce with any particular rejections to these dependent claims, including any assertions concerning common knowledge, obvious design choice and/or what may be otherwise well-known in the art, these rejections are moot in view of the amendments and remarks made in connection with independent Claims 11 and 18. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. "If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious." M.P.E.P. §2143.03; *citing In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, dependent Claims 12-13, 15, 17 and 19 are also allowable over the combination of *La Fetra* and *Mano*.

The undersigned attorney would be willing to discuss this case with the Examiner if the Examiner believes it would be helpful. The undersigned attorney of record can be reached at 952.854.2700, extension 11.

Respectfully submitted,

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